

TABLE 2

		Composition of Final Polymeric Material						Thermal Conductivity (W/M ² K)	
#	Blending Method	Polymeric Material		First Filler Material		Second Filler Material		Microtensile Sample	Test Specimen
1	Solvent	Ultem 1010 PEI	50%	DKD	50%	--	--	--	1.326
2	Solvent	Ultem 1010 PEI	40%	DKD	60%	--	--	--	1.792
3	Solvent	Ultem 1010 PEI	30%	DKD	70%	--	--	3.075	3.516
4	Dry blend	PPS	50%	DKD	50%	--	--	--	0.926
5	Dry blend	PPS	40%	DKD	60%	--	--	--	1.416
6	Dry blend	PPS	30%	DKD	70%	--	--	2.525	2.211
7	Extrusion	PEEK	30%	DKD	70%	--	--	2.501	--
8	Solvent	Ultem 1010 PEI	50%	DKD	25%	Carborundum CTFB Boron Nitride	25%	--	1.140
9	Extrusion	PEEK	50%	DKD	25%	Carborundum CTFB Boron Nitride	25%	--	0.684
10	Solvent	Ultem 1010 PEI	50%	--	--	Carborundum CTFB Boron Nitride	50%	2.137	1.072
11	Extrusion	PEEK	50%	--	--	Carborundum CTFB Boron Nitride	50%	1.492	0.759
12	Solvent	Ultem 1010 PEI	50%	--	--	Transmit K102 Aluminum Flakes	50%	--	1.570
13	Dry blend	PPS	50%	--	--	Transmit K102 Aluminum Flakes	50%	--	1.229
14	Extrusion	PPS	50%	--	--	Transmit K102 Aluminum Flakes	50%	--	0.777
15	Solvent	Ultem 1010 PEI	50%	--	--	AGM 3243 Graphite	50%	2.897	--
16	Dry blend	PPS	50%	--	--	AGM 3243 Graphite	50%	2.497	--

FIGURE 1

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